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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	09/966,158	*
Filing Date	09/28/2001	140
First Named Inventor	Yuichi likubo	
Group Art Unit	1764	(. 0 /
Examiner Name		, ,
Attorney Docket Number	GRLK-003	

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1/2	X	1	2,005,706		H.W. Daudt et al.	06/18/1935	
		2	2,005,707		H. W. Daudt et al.	06/18/1935	
		3	2,576,823		A. F. Benning et al.	11/27/1951	
		4	2,697,124		R. M. Mantell et al.	12/14/1954	
		5	2,900,423		L. B. Smith et al.	08/18/1959	
		6	2,942,036		L. B. Smith et al.	06/21/1960	
		7	3,258,500		F. W. Swamer et al.	06/28/1966	
		8	3,436,430		L. E. Hall et al.	04/01/1969	
		9	3,636,173		L. E. Gardner	01/18/1972	
		10	3,803,241		I. Stolkin et al.	04/09/1974	
		11	4,158,023		von Halasz	06/12/1979	
		12	5,043,491		Webster et al.	08/27/1991	
		13	5,057,634		Webster et al.	10/15/1991	
		14	5,068,472		Webster et al.	11/26/1991	
		15	5,068,473		Kellner et al.	11/26/1991	
		16	5,146,018		Kellner et al.	09/08/1992	
		17	5,171,901		Gassen et al.	12/15/1992	
		18	5,177,273		Bruhnke et al.	01/05/1993	
4		19	5,220,083		Webster et al.	06/15/1993	
1	AK	20	5,268,343		Hopp et al.	12/0 <u>7/1993</u>	

Г	FOREIGN PATENT DOCUMENTS											
Examiner Initials			Office ³	Foreign Patent Document Kind Co Number4 (if know		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	1.e			
		1	CA	1,162,511		von Halasz	05/02/1991					
	7)	2	CA 2	2,081,813		Норр	10/30/1992					
		3	EP (0 349 115 A1		E.I. DuPont De	01/03/1990					
		4	EP (0 434 407 A1		E.I. DuPont De	06/26/1991					
П		5	EP (0 442 075 B1	1	Chemical Abstracts	08/11/1993					
П		6	EP (0 539 989 A1		Hoechst Aktiengese	05/05/1993					
П		7	wo '	WO 91/05752		E.I. DuPont De	05/02/1991					
П	\sim	8	wo.	WO 96/17813	7	E.I. DuPont De	06/13/1996					
N	77	9	wo '	WO 98/50327		Imperial Chemical	11/12/1998		1			
	ZX	10	wo	WO 99/26907		Imperial Chemical	06/03/1999					

Examiner Signature	Date Considered	\$/3/04

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First Named Inventor	Yuichi likubo	Pos
Group Art Unit	1764	C
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Attorney Docket Number	GRLK-003	03

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Tel 21	5,364,992		Manogue et al.	11/15/1994	
(22	5,430,204		Manogue et al.	07/04/1995	
23	5,446,219		Manogue et al.	08/29/1995	
24			Manogue	04/15/1997	
25	5,621,152		Jansen et al.	04/15/1997	
26	5,723,699		Miller et al.	03/03/1998	
27	5,902,911		Rao et al.	05/11/1999	
28	5,919,994		Rao	07/06/1999	
29			Manogue et al.	01/25/2000	
1//30			Pham et al.	12/05/2000	
31	6,211,135		Miller et al.	04/03/2001	

				FOR	EIGN PATENT DOCUMENT	ΓS		
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1	12	UK 4	128,361		Kinetic Chemicals	09/20/1930		
	13		128,445		Kinetic Chemicals	05/07/1935		
	14	UK 4	168,447		F. Davison et al.	08/05/1937		
	1,5	UK 7	790,335		Dow Chemical	02/05/1958		
	16	UK I	,077,932		Howe et al.	08/21/1967		
4/	17	UK 1	,359,023		Imperial Chemical	07/03/1974		
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Under the Pagerwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449B/PTO 09/966,158 **Application Number** INFORMATION DISCLOSURE 09/28/2001 Filing Date STATEMENT BY APPLICANT Yuichi Iikubo First Named Inventor 1764 Group Art Unit **Examiner Name** (use as many sheets as necessary) FEB 2 Attorney Docket Number GRLK-003 Erra TRI OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), Examiner No.1 publisher, city and/or country where published. HERBERT O. HOUSE, "CATALYTIC HYDROGENATION AND DEHYDROGENATION," MODERN SYNTHETIC REACTIONS, 2nd ed., THE BENJAMIN/CUMMINGS PUBLISHINGS COMPANY (Menlo Park, CA), p. 1/2, 1/8/ DMITRII D. MOLDAVSKII, "TECHNOLOGY FOR THE PREPARATION OF PERFLUORO-ORGANIC COMPOUNDS," Journal of Fluorine Chemistry, Elsevier Science S.A. (Netherlands), Vol. 94 (No. 2), p. 157-167, (February 5, 1999). J. KVICALA ET AL., "Preparation of Perhalogenated Chlorofluoropropanes by Halogen Exchange in the Liquid and Vapour Phases and Their Isomer Analyses by 19F NMR Spectroscopy," Journal of Fluorine Chemistry, Elsevier Sequoia (Netherlands), p. 155-175, (February 5, 1989). F. J. METTILLE ET AL., "Methods for the Introductions of Hydrogen into Fluorinated Compounds," Fluorine Chemistry Reviews, 1st ed., Vol. 1 (No. 2), p. 315-358, (February 5, 1967). DR. MARK D. CISNEROS ET AL., "An Integrated Approach to Achieve Low Environmental Impact in the Speical Hazards Fire Suppression Industry," Great Lakes Chemical Corporation (West Lafayette, Indiana), p. 1-8, 1993 VIACHESLAV A. PETROV ET AL., "Isomerization of Halopolyfluoroalkanes by the Action of Aluminum Chlorofluoride," Journal of Fluorine Chemistry, Elsevier Science S.A. (Netherlands), p. 125-130, (February 5, 1998). B. P. AGGARWAL ET AL., "Chlorination of Propane and Propylene and Pyrolysis of Perchloropropane," Petroleum & Hydrocarbons, Vol. 3 (No. 2), p. 69-72, (July 5, 1968). ALBERT L. HENNE ET AL., "Fluorinated Derivatives of Propane and Propylene," p. 496-497, (March 5, 1946). KIRK-OTHMER, "Encyclopedia of Chemical Technology," Cataysis, 3rd ed., John Wiley & Sones (New York), p. 16-18, 1990 MILOS HUDLICKY, "Chemistry of Organic Fluorine Compounds," A Laboratory Manual with Comprehensive Literature Coverage, 2nd ed., Ellis Horwood (New York), p. 170-179, (February 8, 1992).

Date

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